

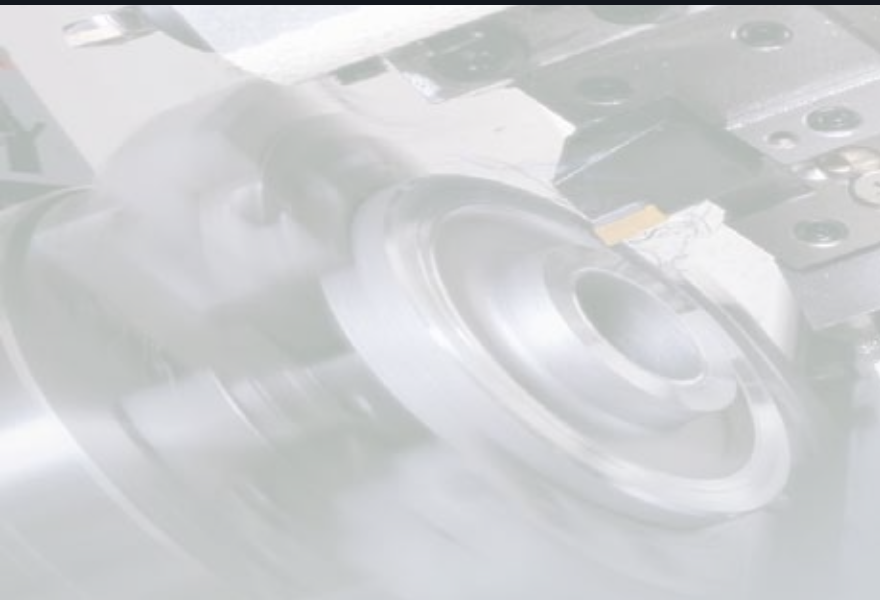
DUGARD

Machine Tools Since 1939

Dugard Large Capacity Multi-Function Lathes
BNC 3000 / BNC 3500 / BNC 4000



www.dugard.com



Large Bed Length

Spindle Bore Options

106mm

153mm

230mm

254mm

355mm



Capacity

Lengths, 1 - 6 metres



Swing in gap

BNC 3000 - 1020mm

BNC 3500 - 1150mm

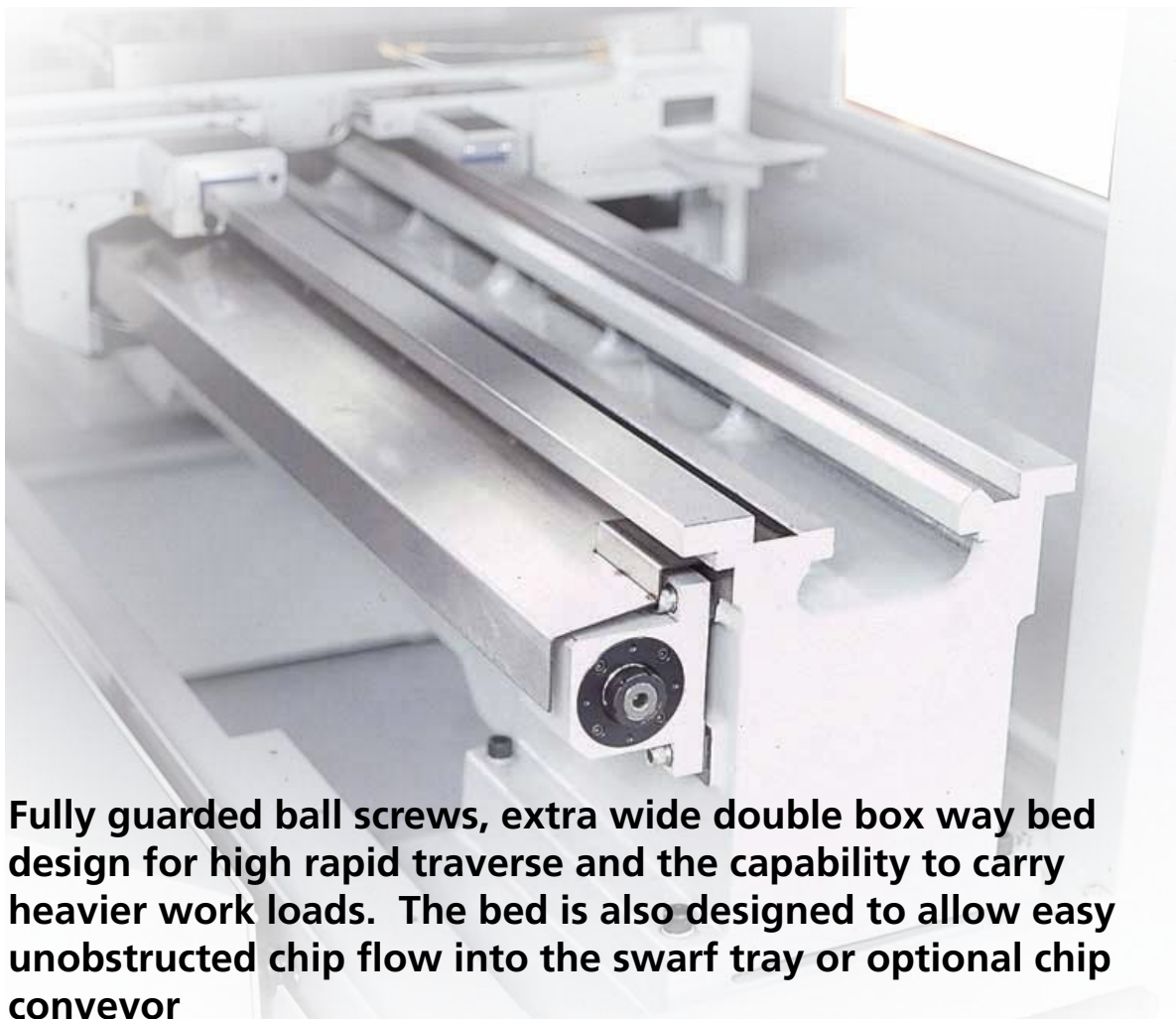
BNC 4000 - 1276mm

Dugard BNC Large Capacity Multi-Function Lathes



Machine is equipped with an extra front mounted manual quick change tool post for accurate location of turning tools

Features of the Dugard Large Capacity BNC Series



Fully guarded ball screws, extra wide double box way bed design for high rapid traverse and the capability to carry heavier work loads. The bed is also designed to allow easy unobstructed chip flow into the swarf tray or optional chip conveyor



**Picture shows optional VDI rear mounted/indexed turret.
Standard automatic turret is block type for standard tooling**



**Large rigid tailstock is ideal for
supporting heavy components
and has no interference issues**



**Rigid headstock design, balanced for high
speed running, incorporating an
automatic speed change system**

Dugard BNC Large Capacity Multi-Function Lathes

Standard Accessories

- Tailstock with tow along facility
- Front mounted quick change tool post
- Rear mounted indexing block turret
- Gap bed
- 22/33kw spindle motor
- CNC control Fagor 8055
- A travelling front guarding system
- Coolant system
- Lubrication system
- 63mm ball screw for 2/3 meters (Z axis)
- 80 mm ball screw for 4/5/6 meters (Z axis)
- CE
- EMC Filter
- Low voltage control system

Optional Accessories

- 30/40kw spindle motor
- Steady rest (roller type)
- Follow rest (bronze type)
- Renishaw tool setting probe
- Hydraulic or manual 3-jaw chuck
- Auto VDI turret
- Electric 4 way tool post
- C axis and power turret
- Joy stick control
- Portable MPG
- Extra I/O board for additional functions
- Chip conveyor and washdown device

Control Options



Fanuc-0iTC

- The biggest selling control in the history of CNC. 9" mono chrome screen
- Full digital drive package
- Industry standard G code programming
- Manual guide i



Fagor-8055

- Up to 1Mb of user RAM memory
- Compact flash of up to 2 Gb (optional) with flash memory to store user programmes, customising programs, parameter tables etc
- USB connector for backup of programmes, parameters and tables
- Ethernet (optional). TCP-IP protocol
- 10.4" colour TFT screen with graphic display
- Conversational system
- Thread repair feature



Siemens-810D

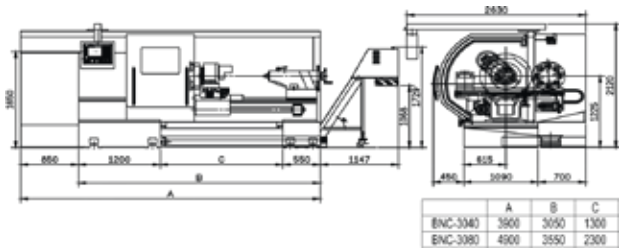
- Digital spindle drive
- 10.4" colour TFT screen with graphic display
- "Manual Turn" software tailor made for manual lathe users to easily adapt to CNC programming
- Graphically guides operator through CNC programming
- G code programming not necessary
- Combines skill of manual operator with power of CNC

Capacity	Unit	BNC-3000 Series	BNC-3500 Series	BNC-4000 Series
Swing in gap	mm	1020	1150	1276
Swing over bed	mm	760	890	1020
Swing over cross slide	mm	420	550	676
Max turning length	mm	1000/2000/3000/4000/5000/6000		
Gap length from spindle nose surface	mm	372		
Max work piece weight (with tailstock)	kg	3000		
Travel				
X axis	mm	455	455	535
Z axis	mm	1200/2200/3200/4200/5200/6200		
Spindle				
Speed range	rpm	15-1480 (106mm/153mm bore), 10-750 (230mm/254mm bore), 10-500 (355mm bore)		
Optional chuck size	mm	305 (106mm bore), 406 (153mm bore or bigger)		
Spindle nose		A1-11 (106mm bore), A2-11 (153mm bore), A2-15 (230mm/254mm bore), A2-20 (355mm bore)		
Spindle hole diameter	mm	106 (std), 153, 230, 254 & 355 (opt)		
Motor Power	kW	22/33 (std)		
Max torque	Nm	4022		
Turret (option)				
Number of tool stations		12 / 8		
Tool allowance	mm	25 / 30		
Tool shank	mm	40 / 50		
Feed rate				
X axis rapid traverse	mm/min	10		
Z axis rapid traverse	mm/min	12		
Jog feed rate	mm/min	3000		
Accuracy				
Positioning	mm	0.015		
Repeatability	mm	0.01		
Slides				
Overall bed guide width	mm	560		
Cross slide guide width	mm	300		
Feed motors				
X axis power	Nm	11.9		
Z axis power	Nm	20.8 (shorter 4m length) / 27.3 (5m & longer)		
Ballscrew				
X axis	mm	40		
Z axis	mm	63 (shorter and 4m length), 80 (5m & longer)		
Tailstock				
Quill stroke	mm	200		
Quill diameter	mm	125		
Quill inside taper	MT	6		
Coolant				
Pump motor	HP	450 (W)		
Pump capacity	L/min	55		
Pump pressure	kg/cm ²	2.4		
Dimension				
Length	mm	3900/4900/5900/6900/7900/8900		
Width	mm	2630		2800
Height	mm	2120		2285
Weight				
BNC-3000 Series	kg	9000/10000/11000/12000/13000/14000		
BNC-3500 Series	kg	9500/10500/11500/12500/13500/14500		
BNC-4000 Series	kg	10000/11000/12000/13000/14000/15000		

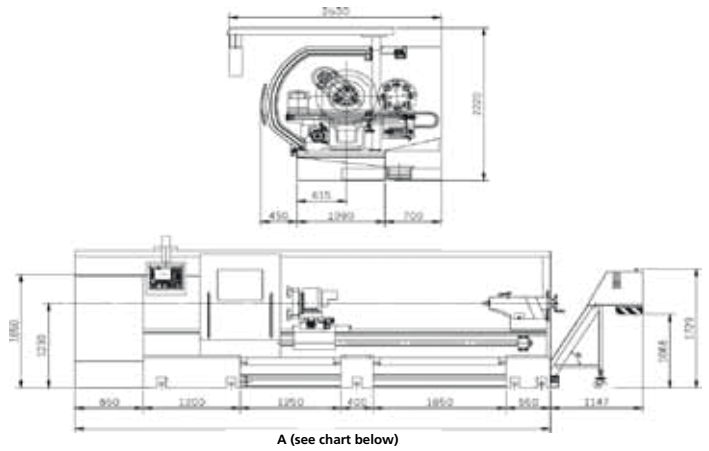
Dugard BNC Large Capacity Multi-Function Lathes

Dugard BNC 3000X and 3500X Series Machine Layout

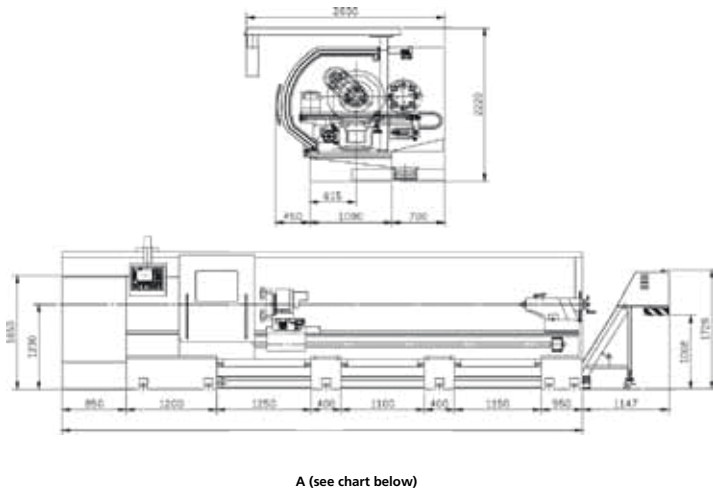
Max turning length 1000mm & 2000mm



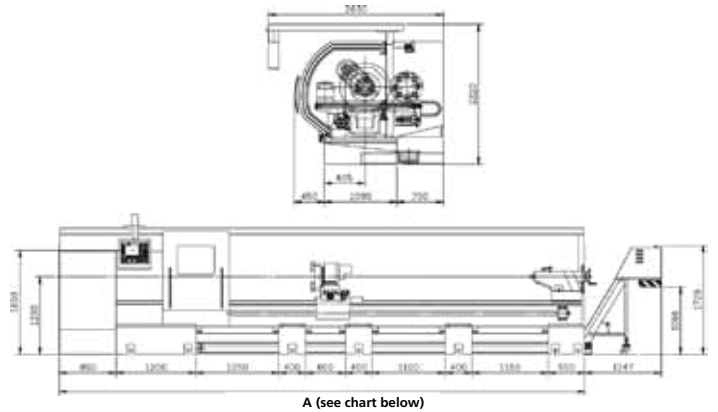
Max turning length 3000mm



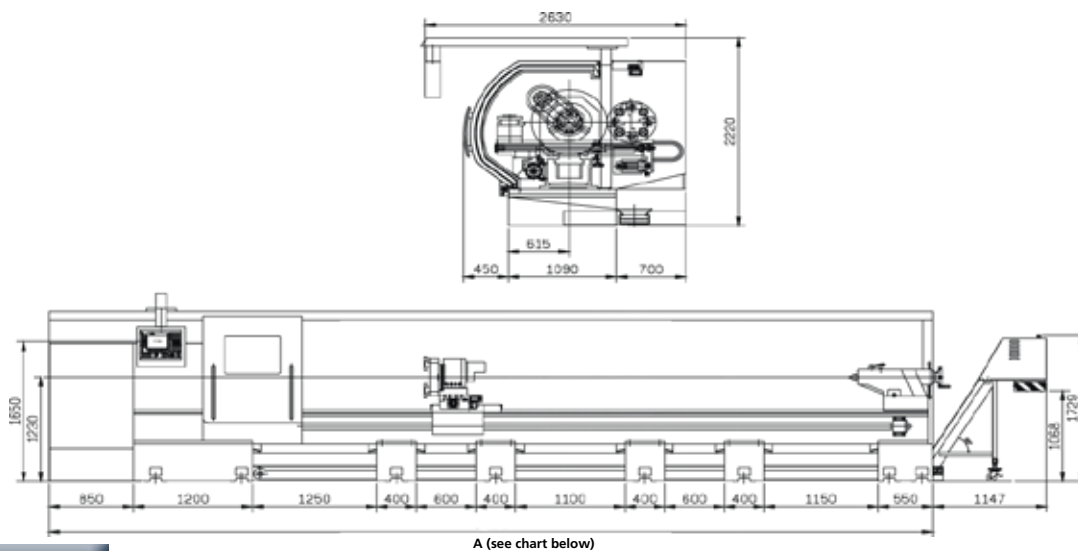
Max turning length 4000mm



Max turning length 5000mm



Max turning length 6000mm



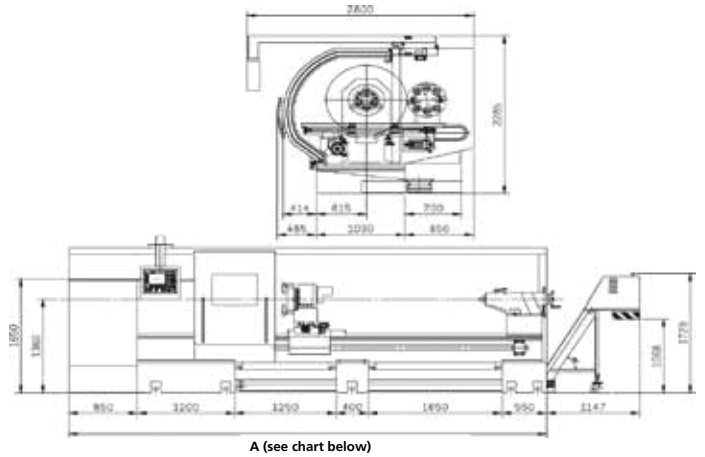
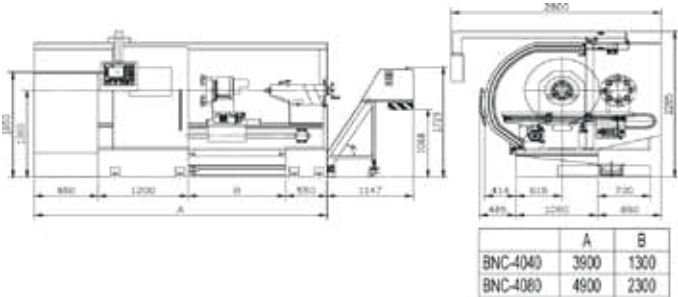
Machine Length Chart

Turn Length	A
3,000mm	5,900mm
4,000mm	6,900mm
5,000mm	7,900mm
6,000mm	8,900mm

Dugard BNC 4000 Series Machine Layout

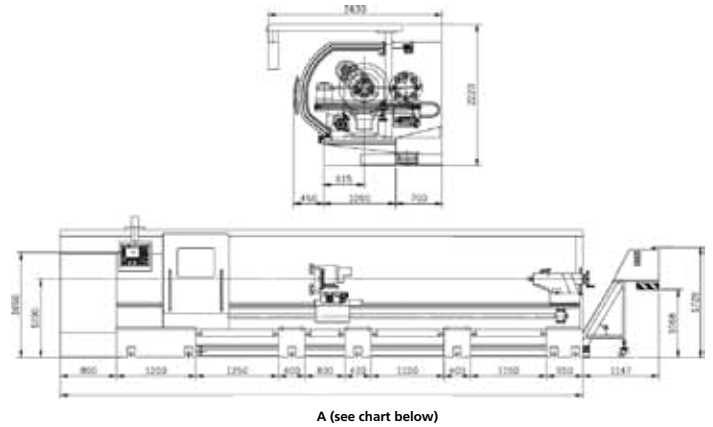
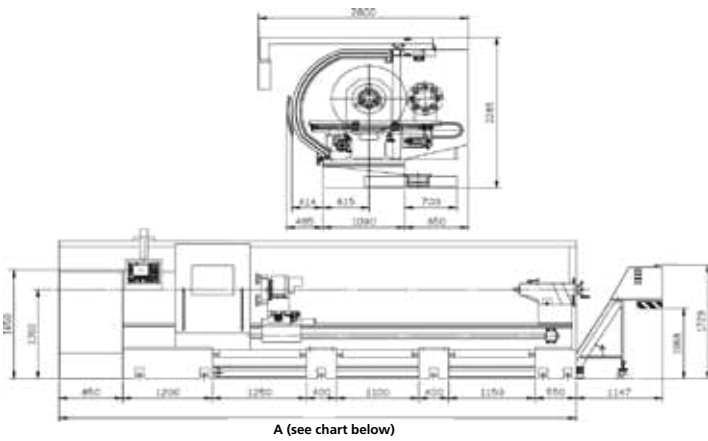
Max turning length 1000 & 2000mm

Max turning length 3000mm



Max turning length 4000mm

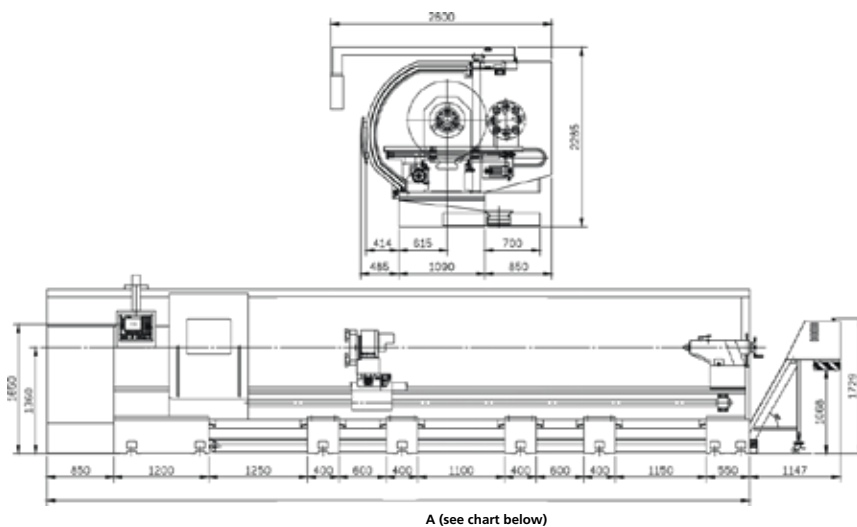
Max turning length 5000mm



Max turning length 6000mm

Machine Length Chart

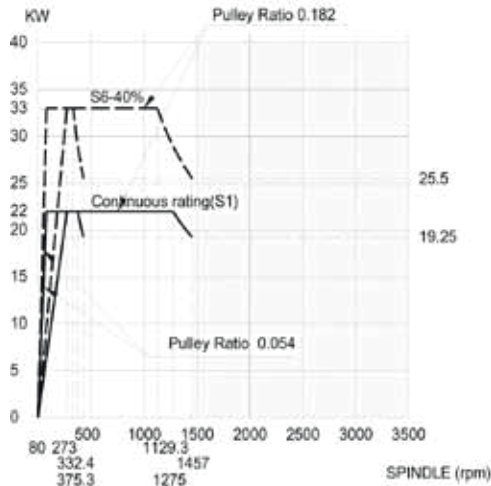
Turn Length	A
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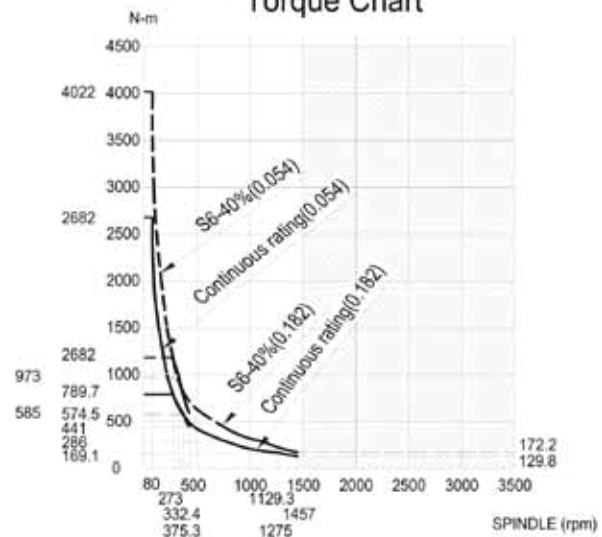
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With Fagor 22/33 kw spindle motor (standard)
106mm (std) / 153mm (opt) bore, max speed 1480rpm

Horsepower Chart



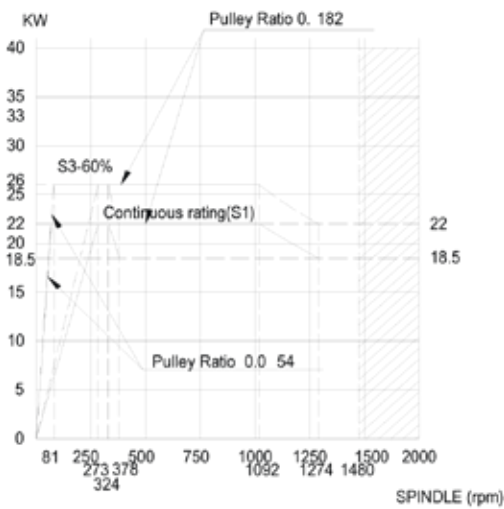
Torque Chart



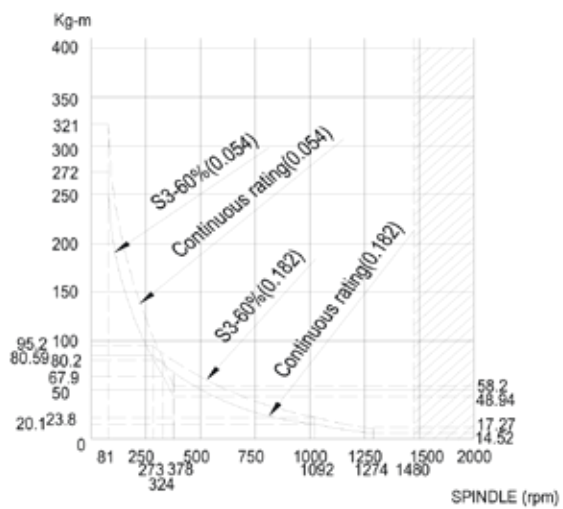
Torque / Horsepower Chart Data			
Spindle Taper	ISO	A1-11(106mm) A2-11(153mm)	Spindle Motor Motor Output Gear Ratio Pulley Ratio
			Fagor FM7-A220 22/33 kw 0.182/0.054 -
Spindle Speed		1500 RPM	

With Fanuc 22/26kw spindle motor (standard)
106mm (std) / 153mm (opt) bore, max speed 1480rpm

Horsepower Chart



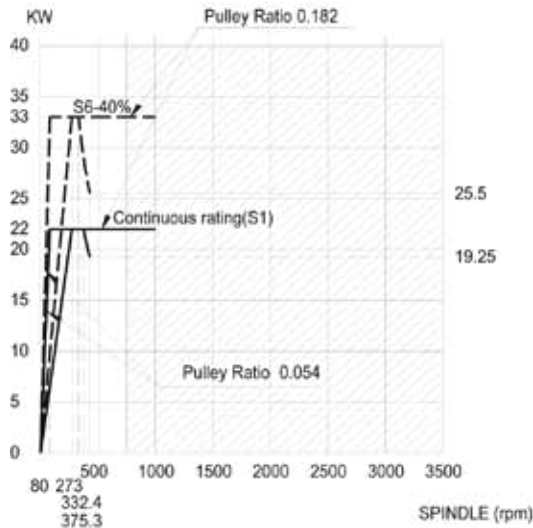
Torque Chart



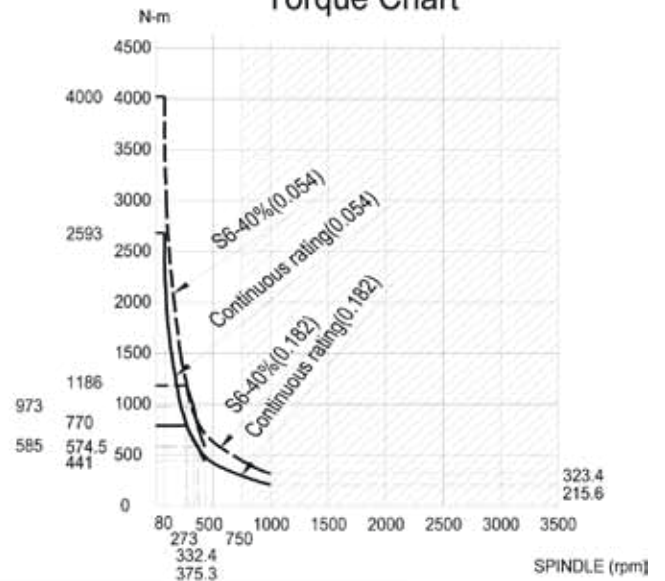
Torque / Horsepower Chart Data			
Spindle Taper	ISO	A1-11(106mm) A2-11(153mm)	Spindle Motor Motor Output Gear Ratio Pulley Ratio
			Fanuc a22/7000i 22/26 kw 0.182/0.054 -
Spindle Speed		1480 RPM	

With Fagor 22/33kw spindle motor (standard)
230mm/254mm (opt) bore, max speed 750rpm

Horsepower Chart



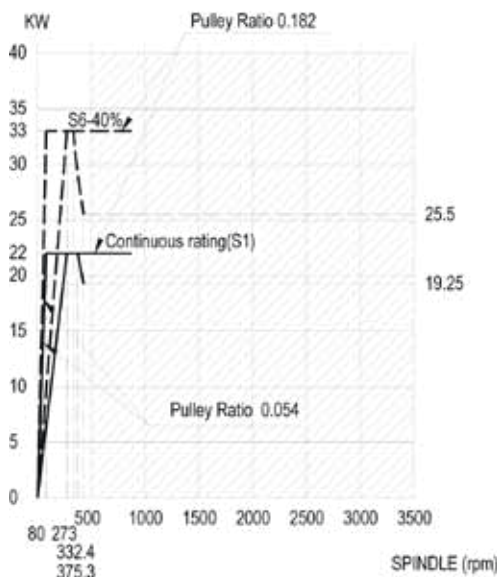
Torque Chart



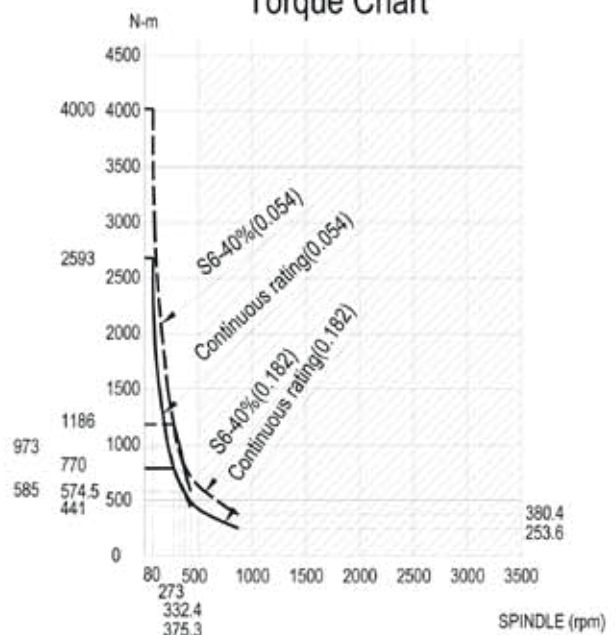
Torque / Horsepower Chart Data			
Spindle Taper	ISO A2-15(230mm)	Spindle Motor	Fagor FM7-A220
		Motor Output	22/33 kw
		Gear Ratio	0.182/0.054
Spindle Speed	750 RPM	Pulley Ratio	-

With Fagor 22/33kw spindle motor (standard)
355mm (opt) bore, max speed 500rpm

Horsepower Chart



Torque Chart



Torque / Horsepower Chart Data			
Spindle Taper	ISO A2-20(305mm)	Spindle Motor	Fagor FM7-A220
		Motor Output	22/33 kw
		Gear Ratio	0.182/0.054
Spindle Speed	500 RPM	Pulley Ratio	-

European headquarters for Dugard CNC Machine Tools

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